

IN THE CLAIMS:

Please amend the claims as follows:

Claim 1. (Currently Amended) A III-V group compound semiconductor represented by the general formula $\text{In}_x\text{Ga}_y\text{Al}_z\text{N}$ ($x+y+z=1$, $0 \leq x \leq 1$, $0 \leq y \leq 1$, $0 \leq z \leq 1$) in which the concentration of an n-type carrier is $1 \times 10^{19} \text{ cm}^{-3}$ or less, ~~wherein~~ and the concentration of a p-type dopant is $1 \times 10^{17} \text{ cm}^{-3}$ or more and $1 \times 10^{21} \text{ cm}^{-3}$ or less;

~~wherein a single layer contains~~ the n-type carrier and the p-type dopant are contained in a single layer.

Claim 2. (Currently Amended) A III-V group compound semiconductor having a structure in which a layer (B) composed of a III-V group compound semiconductor represented by the general formula $\text{In}_u\text{Ga}_v\text{Al}_w\text{N}$ ($u+v+w=1$, $0 < u \leq 1$, $0 \leq v < 1$, $0 \leq w < 1$) is adjacent to a layer (A) composed of a III-V group compound semiconductor represented by the general formula $\text{In}_x\text{Ga}_y\text{Al}_z\text{N}$ ($x+y+z=1$, $0 \leq x \leq 1$, $0 \leq y \leq 1$, $0 \leq z \leq 1$) in which the concentration of an n-type carrier is $1 \times 10^{19} \text{ cm}^{-3}$ or less, ~~wherein~~ and the concentration of a p-type dopant is $1 \times 10^{17} \text{ cm}^{-3}$ or more and $1 \times 10^{21} \text{ cm}^{-3}$ or less, and the band gap is larger than that of said layer (B);

wherein the n-type carrier and the p-type dopant are contained in a single layer.

Claim 3. (Currently Amended) A III-V group compound semiconductor having a structure in which a layer (A) composed of a III-V group compound semiconductor represented by the general formula $\text{In}_x\text{Ga}_y\text{Al}_z\text{N}$ ($x+y+z=1$, $0 \leq x \leq 1$, $0 \leq y \leq 1$, $0 \leq z \leq 1$) in which the concentration of an n-type carrier is $1 \times 10^{19} \text{ cm}^{-3}$ or less, ~~wherein~~ and the concentration of a p-type dopant is $1 \times 10^{17} \text{ cm}^{-3}$ or more and $1 \times 10^{21} \text{ cm}^{-3}$ or less is adjacent to a layer (C) composed of a p-type III-V group compound semiconductor represented by the general formula $\text{In}_a\text{Ga}_b\text{Al}_c\text{N}$ ($a+b+c=1$, $0 \leq a \leq 1$, $0 \leq b \leq 1$, $0 \leq c \leq 1$);

wherein the n-type carrier and the p-type dopant are contained in a single layer.

Claim 4. (Currently Amended) A III-V group compound semiconductor having a structure comprising at least one layer (A) composed of a III-V group compound semiconductor represented by the general formula $\text{In}_x\text{Ga}_y\text{Al}_z\text{N}$ ($x+y+z=1$, $0 \leq x \leq 1$, $0 \leq y \leq 1$, $0 \leq z \leq 1$) in which the concentration of an n-type carrier is $1 \times 10^{19} \text{ cm}^{-3}$ or less, ~~wherein~~ and the concentration of a p-type dopant is $1 \times 10^{17} \text{ cm}^{-3}$ or more and $1 \times 10^{21} \text{ cm}^{-3}$ or less, between a layer (B) composed of a III-V group compound semiconductor represented by the general formula $\text{In}_u\text{Ga}_v\text{Al}_w\text{N}$ ($u+v+w=1$, $0 < u \leq 1$, $0 \leq v < 1$, $0 \leq w < 1$) and a

layer (C) composed of a p-type III-V group compound semiconductor represented by the general formula $\text{In}_a\text{Ga}_b\text{Al}_c\text{N}$ ($a+b+c=1$, $0 \leq a \leq 1$, $0 \leq b \leq 1$, $0 \leq c \leq 1$),

wherein the n-type carrier and the p-type dopant are contained in a single layer, and wherein layer (A) is adjacent to layer (C).

Claim 5. (Currently Amended) A III-V group compound semiconductor having a structure comprising a layer (B) composed of a III-V group compound semiconductor represented by the general formula $\text{In}_u\text{Ga}_v\text{Al}_w\text{N}$ ($u+v+w=1$, $0 < u \leq 1$, $0 \leq v < 1$, $0 \leq w < 1$) carrying thereon a laminated layer (D) composed of an n-type III-V group compound semiconductor represented by the general formula $\text{In}_p\text{Ga}_q\text{Al}_r\text{N}$ ($p+q+r=1$, $0 \leq p \leq 1$, $0 \leq q \leq 1$, $0 \leq r \leq 1$) having larger band gap than that of said layer (B), and at least one layer (A) composed of a III-V group compound semiconductor represented by the general formula $\text{In}_x\text{Ga}_y\text{Al}_z\text{N}$ ($x+y+z=1$, $0 \leq x \leq 1$, $0 \leq y \leq 1$, $0 \leq z \leq 1$) in which the concentration of an n-type carrier is $1 \times 10^{19} \text{ cm}^{-3}$ or less, ~~wherein~~ and the concentration of a p-type dopant is $1 \times 10^{17} \text{ cm}^{-3}$ or more and $1 \times 10^{21} \text{ cm}^{-3}$ or less, between said layer (D) composed of the n-type III-V group compound semiconductor and a layer (C) composed of a p-type III-V group compound semiconductor represented

by the general formula $\text{In}_a\text{Ga}_b\text{Al}_c\text{N}$ ($a+b+c=1$, $0 \leq a \leq 1$, $0 \leq b \leq 1$, $0 \leq c \leq 1$), on the opposite side to said layer (B);

wherein the n-type carrier and the p-type dopant are contained in a single layer.

Claim 6. (Previously Presented) The III-V group compound semiconductor according to any one of claims 1 to 5 wherein the p-type dopant is Mg and/or Zn.

Claim 7. (Currently Amended) A method of producing a III-V group compound semiconductor according to any one of claims 1 to 5, comprising growing a III-V group compound semiconductor represented by the general formula $\text{In}_x\text{Ga}_y\text{Al}_z\text{N}$ ($x+y+z=1$, $0 \leq x \leq 1$, $0 \leq y \leq 1$, $0 \leq z \leq 1$) in which the concentration of an n-type carrier is $1 \times 10^{19} \text{ cm}^{-3}$ or less, ~~wherein~~ and the concentration of a p-type dopant is $1 \times 10^{17} \text{ cm}^{-3}$ or more and $1 \times 10^{21} \text{ cm}^{-3}$ or less, at temperatures of 600°C or more and 950°C or less according to a metal organic vapor phase growth method.

Claim 8. (Previously Presented) A light emitting device obtained by using a III-V group compound semiconductor according to any one of claims 1 to 5.

Claim 9. (Canceled)